Chapter 1 Nature in Our Surroundings

In this chapter, we are going to study:

- Let's Find Living Organisms
- How to Observe
- Colours and Shapes of Living Organisms

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Main Vocabulary

Page ④

Schoolyard	فناء المدرسة	Habitat	موطن	Location	موقع

Page ⑤

Grasshopper	جراد أخضر	Pill bug	سوسة المنقار	Lizard	سحلية
Grass	عشب	Damp Place	مكان رطب	Shadow	ظل

Page ⑥

Magnifying Glass	عدسة مكبرة	Veins	عروق	Leaf	ورقة نبات
Joints	مفاصل	Caution	تنبيه	Damage	تدمر

Page ⑦

Record Card	بطاقة تعريف	Topic	عود بخور	Date	تاريخ
Thin, clear lines	خطوط رفيعة واضحة	Shade	ظل	Dung beetle	خنفساء الروث

Page ⑨

Water Lily (Lotus)	زنبق الماء (اللوتس)	Papyrus	نبات البردى	Butterfly	الفراشة
Egyptian eagle	النسر المصرى	Shape	شكل	Size	حجم

Page ⑫

Cattle Egret	أبو قردان	Hoopoe	هدهد	Plain Tiger	فراشة النمر
Egyptian Cobra	افعى الكوبرا	Sand cat	قط الرمال	Farmlands	أراضى زراعية
Gardens	حدائق	Valleys	وديان	City parks	حدائق المدينة
Semi-desert Areas	شبه صحراوية	Woodlands	غابات	Savannas	غابات السافانا

Page ⑬

Clover	البرسيم	Colocynth	حنظل	Date palm	النخل
Acacia	شجرة السنط	Watersides	ضفاف المياه	Swamps	مستنقعات
Wetlands	أراضى رطبة	Oases	واحات	Dry areas	أماكن جافة

Page ⑮

Plenty	وفرة	Moist	رطب	Luffa	القرع الليفي
Frog	ضفدع	Bee	نحلة	Water birds	طيور مائية
Fennec Fox	ثعلب الفنك	Jerboa	اليربوع		

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Main Vocabulary

Page ⑰

Camel	جمل	Store	يخزن	Back legs	سيقان خلفية

Page ⑱

Soles	باطن القدم	Tiny leaves	أوراق صغيرة	Lose	يخسر

Page ⑲

Scarab	جعران	Ancient	عتيق (قديم)	Holy creature	مخلوق مقدس
Roll	يلف	Dung	روث	Bury	يدفن
Dirty work	عمل شاق	Cleanup	تنظيف	Nature	طبيعة
Deliver	يوصل	Nutrients	عناصر غذائية	Sickness	مرض
Spreading	نشر	Leftover	بقايا	Milky Way	مجرة درب التبانة
Guide	دليل	Navigator	نظام ملاحة	Universe	الكون

PONY

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Let's Find Living Organisms

Warm up!

We have studied before that **animals** and **plants** are living organisms!

Living organisms are different from non-living things as they **feed**, **breathe** and **grow**.

Where does a living organism live?

I think a living organism lives in a **habitat**.

Where do living organisms live?

- Many living organisms live in places near us, like a schoolyard.
- The kinds of living organisms you find are different depending on the **location**.
- The place where a living organism lives in is called **"Habitat"**.

Habitat

It is the place where a living organism lives.

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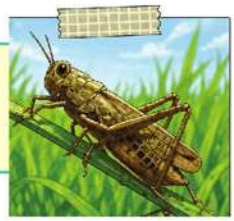
Examples of places where living organisms live:

Grasshoppers live near grass or trees:

- To find food easily.
- To hide from dangerous animals.



Pill bugs are found in damp places under stones or in shadows of rocks.

- Because they are cool damp places away from the sun.

Lizards are found on sunny rocks in deserts.

Even in hot and dry deserts, living organisms match their environment and can live in the shadow of rocks or under the ground.

You can look for small animals near grasses, trees or rocks in your schoolyard.

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How to Observe

- When you look closely at living organisms, pay attention to the **shape**, **colour**, and **size**.

First How to use a magnifying glass:

- A magnifying Glass is used to see tiny things that can not be seen with your naked eye.

Steps of using a magnifying glass:

When you **can** move the thing:

Hold the glass close to your eyes.

Move the thing back and forth.

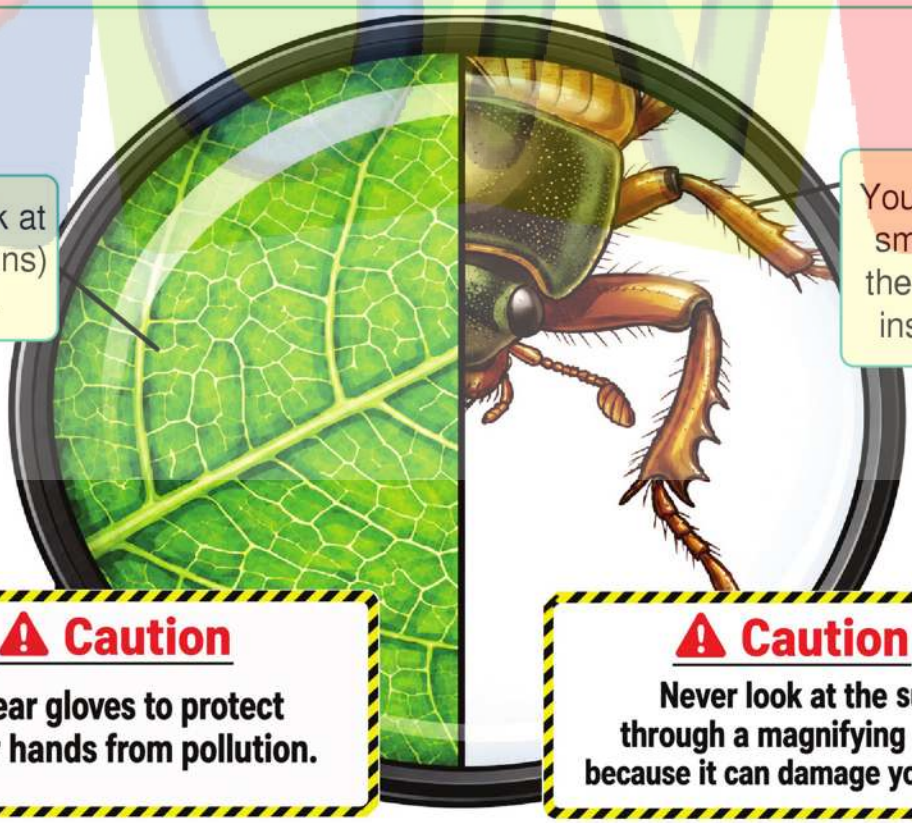
When you **can't** move the thing:

Hold the glass close to your eyes.

Move your face back and forth.

You can look at the lines (veins) on a leaf.

You can look at small hairs or the joints of an insect's legs.



⚠ Caution

Wear gloves to protect your hands from pollution.

⚠ Caution

Never look at the sun through a magnifying glass because it can damage your eyes.

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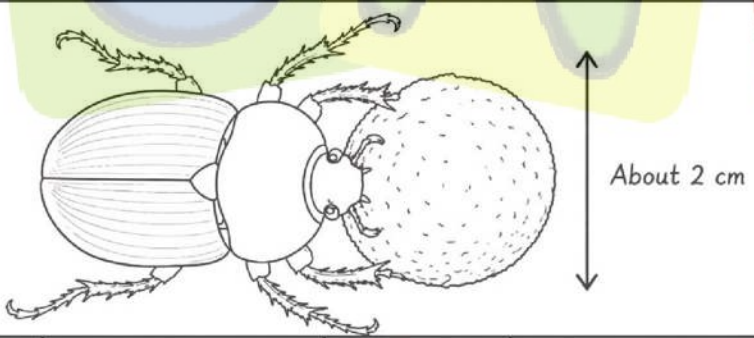
Second How to write a record card:

1. Write the **topic** first.
2. Write the **date** and **your name**.
3. Write what you found with a **sketch** and **sentences**.
   - * Sketch: Draw with thin, clear lines.
   - * Sentences: Write about the place, size, shape, and color.

4. Finally, write what you learned or what you wondered.

Dung beetle

Date: September 2026	**Name:** Kenzy Ahmed (Grade 4)



Size:	About 2 cm	**Color:**	Blackish
Shape:	It's an oval-shaped with long back legs.		
Location:	On the ground near the Nile River		

It rolled a perfectly round ball of dung backward while standing on its head. I wonder how they make it such a perfect circle.

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Evaluate your Understanding on Part (1)

1 Put (✓) or (✗), with correction if needed:

1. Hold the glass far from the eye and look around. ( )
2. Hold the glass close to the eye and looked at the sun. ( )
3. When observing a tree that cannot move, move your own face to focus. ( )
4. Look at a leaf in your hand, held the glass to the eye and moved the leaf back and forth. ( )

2 What is important to write on a record card besides the sketch? Choose 3 correct answers from below:

ⓐ Date
ⓑ Location found
ⓒ What you ate for dinner yesterday
ⓓ Colour and shape of the living organism
ⓔ Your favorite colours and shapes

3 Complete the following sentences using the word bank:

record card	grass	damp	habitat	magnifying glass

1. The place where a living organism lives is called its ..... .
2. A ..... helps us observe small details that cannot be seen clearly with naked eyes.
3. Grasshoppers usually live near ..... .
4. A ..... is used to organize observations with drawings and sentences.

4 Choose the correct answer:

- **Which student is making the BEST scientific observation?**
  - ⓐ The flower is beautiful.
  - ⓑ The flower is my favorite.
  - ⓒ The flower has five pink petals and green leaves.

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Colours and Shapes of Living Organisms

- In this experiment, we will observe, compare, and group different organisms based on their **colours**, **shapes**, and **sizes**.

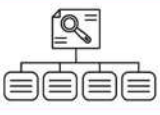
Experiment Let's Group the Living Organisms

Preparation:

Steps:

1. Look at all the stickers of living organisms.

2. Classify living organisms according to **colour**, **shape**, and **size**.



3. Put stickers in the correct **groups** in your Notebook.

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Results:

Classification according to colour

Brown	Green	Colourful
Grasshopper	Papyrus	Butterfly
Spider	Water lily	Flower
Lizard		
Egyptian Eagle		

Classification by shape

8 legs	6 legs	4 legs	2 legs	No legs
Spider	Grasshopper	Lizard	Egyptian Eagle	Papyrus
	Butterfly			Water lily
				Flower

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Classification by size

Bigger than sparrow

Egyptian Eagle

Lizard

Papyrus

Smaller than sparrow

Grasshopper

Spider

Butterfly

Flower

Water lily

Conclusions:

- Classification is the process of collecting things with similar features and putting them in groups based on **common points** and **differences**.

We can classify living organisms by three **steps**:

Step 1

Find common points.

Look for things that are the same.

Step 2

Find differences.

Look for things that are NOT the same.

Step 3

Classify them in groups.

Collect things with similar features and put them in groups.

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Let's Expand! (Animals)

Cattle Egret

Habitat

- The Nile River Basin
- Farmlands
- Green Areas

Egyptian Cobra

Habitat

- Dry Semi-deserts
- Savannas
- Woodlands

Hoopoe

Habitat

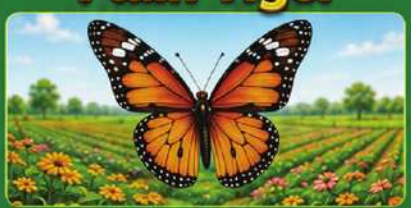
- Gardens
- Farmlands

Dung Beetle

Habitat

- Deserts
- Grasslands
- Farmlands

Plain Tiger



Habitat

- The Nile Delta
- Valleys
- City parks

Sand Cat

Habitat

- Eastern Desert
- Nile River

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Let's Expand! (Plants)

Papyrus

Habitat

- Watersides of The Nile Delta
- Swamps

Colocynth

Habitat

- Dry Deserts near the Mediterranean Sea

Egyptian Clover

Habitat

- Rich lands of The Nile Delta
- Upper Egypt

Date Palm

Habitat

- Deserts
- Oases
- The Nile River Basin

Lotus

Habitat

- Wetlands and Swamps of the Nile River

Acacia

Habitat

- Deserts
- Around Oases
- Dry Areas

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Evaluate your Understanding on Part (2)

1 Classify the following living organisms in the table below:

Cattle Egret – Acacia – Lotus – Papyrus – Colocynth

Living Organisms in Desert or Dry Areas with less Water	Living Organisms in Areas near Nile River or Delta
.....	.....
.....	.....
.....	.....

2 Cross out the odd word, and state the relationship among the remaining words:

1. **Egyptian Eagle – Lizard – Spider – Butterfly**

   The odd word: .....

   The relation between the rest word: .....

2. **Flower – Clover – Papyrus – Sand Cat**

   The odd word: .....

   The relation between the rest word: .....

3 Complete the following sentences using the word bank:

similarities	colour	size	groups	differences	shape

1. Living organisms can be classified based on ....., ... and ..... .
2. Scientists group organisms based on their ..... and ..... .
3. Classification helps organize organisms into ..... .

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Different Places, Different Living Organisms

Now, we are going to study two different habitats in Egypt.

Along the Nile River
Desert
Living organisms that need plenty of water live near the river.
Living organisms that need very little water live in the desert.

Along the Nile River		Desert
Plenty of Water Moist Soil	Environment	Very Little Water Dry Soil
Luffa, Orange, Lotus	Plants	Acacia, Colocynth
Frog, Bee, Water Bird	Animals	Fennec Fox, Jerboa, Lizard

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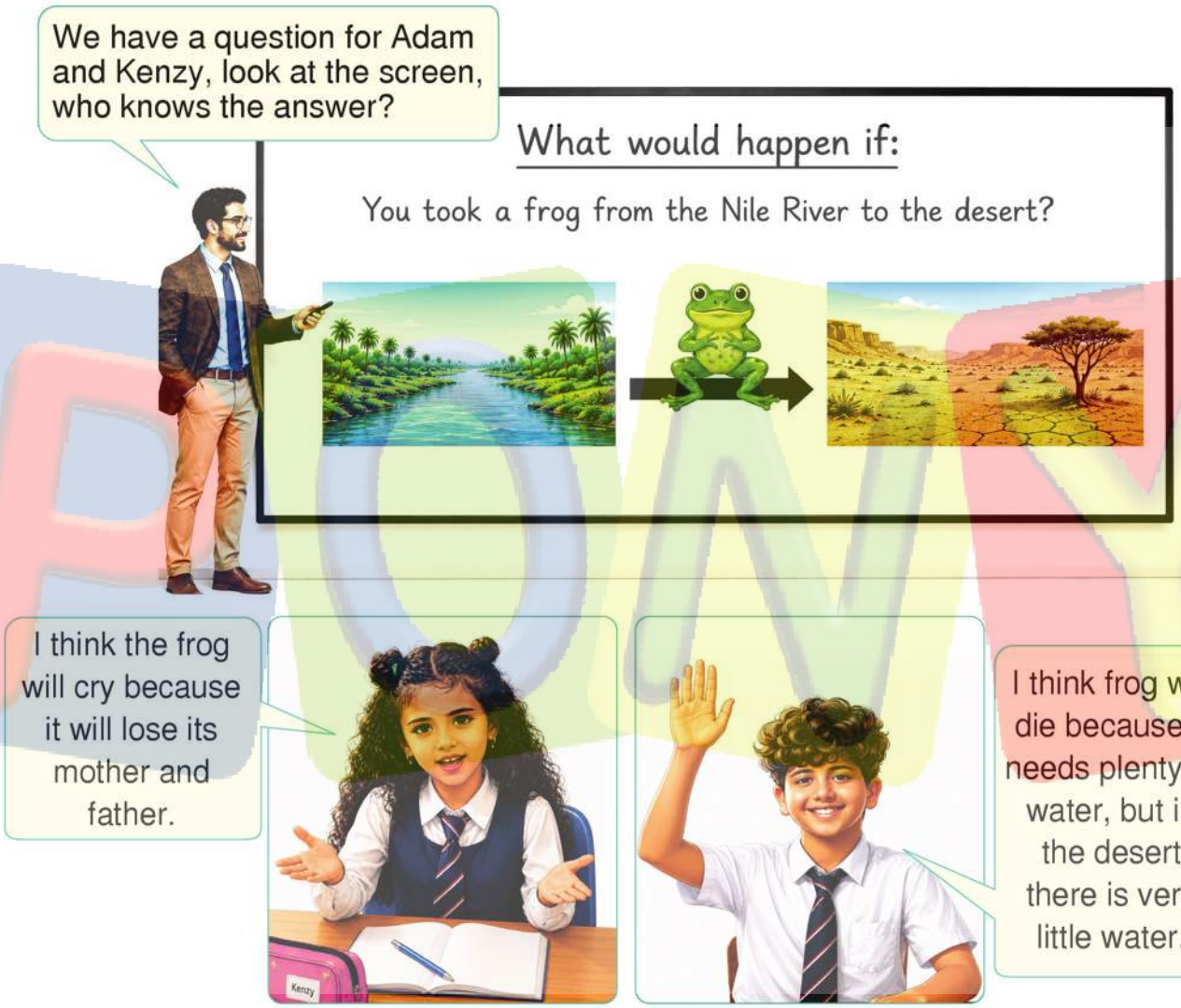
Adaptation

Warm up!

The teacher organizes a competition among students in the classroom.


We have a question for Adam and Kenzy, look at the screen, who knows the answer?
What would happen if:
You took a frog from the Nile River to the desert?
I think the frog will cry because it will lose its mother and father.
I think frog will die because it needs plenty of water, but in the desert there is very little water.
Kenzy

Which answer is more scientific? Who wins?

- Living organisms need **adaptations** suited to their environments to live.

Adaptation

It is the change in **body parts** or **behaviors** of a living organism to survive in its **habitat**.

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Desert Living Organisms

- In the deserts of Egypt, living organisms have **special body shapes** and **ways of living** to match the **harsh environment**.

First Ways of living in desert:

During the day:
(Temperature goes up.)
Desert animals spend time in cool holes under the ground.

During the night:
(Temperature goes down.)
Desert animals become active.

Some desert animals drink almost no water and can live only on the water found in their food.

Camels drink a lot of water at once and store it inside their bodies.

Second Special body shapes:

1 Jerboa

Jerboa has long back legs (hind legs):

- To jump like a kangaroo to move quickly.
- To decrease the time their feet touch the hot sand.

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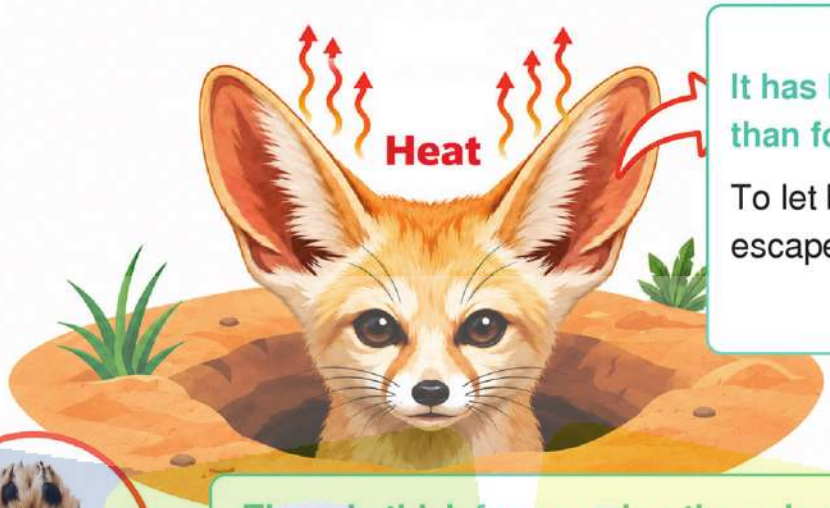
② Fennec fox



It has bigger ears than foxes in forests.

To let body heat escape to the outside.

There is thick fur covering the soles of its feet.

To protect them from burning when walking on hot sand.

③ Acacia tree

It has small (tiny) leaves.

- To avoid losing water.

Its roots grow deep underground.

To get water from the deep soil.

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The Desert Cleaner, the"Scarab"

- The most famous insect loved by Ancient Egyptians was the **scarab (dung beetle)**.
- The Ancient Egyptians treated this bug with great care as they believed that it was **"a creature connected to the Sun."**

1 Scarabs are "Guardians of the Environment"

- Scarabs **roll** animal dung into balls, **carry** them, and **bury** them in the soil.
- It might look like a dirty work, but this is a very important "cleanup" for nature.

Making the soil rich

By burying **dung** in the **dirt**, they deliver **nutrients** (plant food) to the soil so plants can **grow**.

Preventing sickness

By preventing sickness from spreading from leftover dung.

2 The Amazing Ability of Scarabs

- Recent studies have found that when scarabs roll **dung**, they are actually looking at the **"stars"**.
- At night, they use the **light** of the **Milky Way** as a guide to carry it straight to where they want to go.
- They have a **super smart navigator** inside their small bodies and they can feel the **universe**.

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Evaluate your Understanding on Part (3)

1 Complete the following sentences using the word bank:

roll	jerboa	desert	adaptation	Nile River	bury

1. Living organisms near the ..... need plenty of water.
2. The ..... has long back legs to move quickly on hot sand.
3. Scarabs ..... dung into balls and ..... them in the soil.
4. The process that helps living things survive in their habitat is called .....

2 Put (✓) or (✗), with correction if needed:

1. Jerboas are active mainly during the day. ( )
2. Acacia trees have large leaves to collect more sunlight. ( )
3. Adaptation means changing the habitat of an organism. ( )

3 Choose the correct answer:

1. **A scientist moved a frog from the Nile River to the desert. Which is the best scientific explanation?**
   - ⓐ It becomes a desert animal immediately.
   - ⓑ It survives because all animals need the same amount of water.
   - ⓒ It may die because it is not adapted to desert conditions.
2. **Why are scarabs called "Guardians of the Environment"?**
   - ⓐ Because they eat insects.
   - ⓑ They have a super smart navigator.
   - ⓒ They bury dung in the soil.

4 Cross out the odd word, and state the relationship among the remaining words:

- **Lotus – Orange – Acacia – Luffa**

  The odd word: .....

  The relation between the rest word: .....

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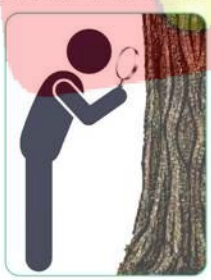
Exercises on Chapter 1 — Nature in Our Surroundings

First PONY Questions

Objective Questions

1 Choose the correct answer:

1. **The place where a living organism lives is called .....**
   ⓐ record card ⓑ adaptation ⓒ habitat ⓓ classification
2. **A pill bug lives under stones because it needs .....**
   ⓐ a dry, sunny place ⓑ a damp shade
   ⓒ more food ⓓ fresh air
3. **Animals like grasshoppers live near grass or trees to .....**
   ⓐ drink large amounts of water ⓑ easily find food and hide
   ⓒ stay cool on sunny days ⓓ lay eggs in a safe place
4. **When observing where small animals live in the desert, you will find lizards .....**
   ⓐ near grass ⓑ on tree leaves
   ⓒ on rocks ⓓ in damp places
5. **To correctly use a magnifying glass to look at a tree, you should .....**
   ⓐ hold the glass close to your eye and move your face back and forth
   ⓑ hold the glass far away and move it back and forth
   ⓒ hold the glass close to the tree and walk backward
   ⓓ look directly at the sun first to get more light



6. **An important rule for drawing in a record card is to .....**
   ⓐ use thick, dark lines and colour the drawing
   ⓑ add shadows to make the drawing more attractive
   ⓒ add extra details to improve the picture
   ⓓ draw exactly what you see with thin lines and no shading
7. **To find common points when classifying living organisms, scientists .....**
   ⓐ look for differences ⓑ find similarities
   ⓒ make groups ⓓ write a record card

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8. **Spiders and butterflies are classified by their legs, where .....**
   - ⓐ both of them have 6 legs
   - ⓑ both of them have 8 legs
   - ⓒ spiders have 8 legs, while butterflies have 6 legs
   - ⓓ spiders have 4 legs, while butterflies have 2 legs

9. **Both the Hoopoe bird and the Cattle Egret naturally live in .....**
   - ⓐ dry woodlands
   - ⓑ farmlands
   - ⓒ wet swamps
   - ⓓ deserts

10. **The plant that naturally grows in the rich lands of the Nile Delta and Upper Egypt is the .....**
    - ⓐ colocynth
    - ⓑ acacia
    - ⓒ Egyptian clover
    - ⓓ date palm

11. **The plant that lives in the dry deserts near the Mediterranean Sea is the .....**
    - ⓐ lotus
    - ⓑ Egyptian clover
    - ⓒ papyrus
    - ⓓ colocynth

12. **All these animals can live in the hot desert, except .....**
    - ⓐ Egyptian cobra
    - ⓑ fennec fox
    - ⓒ frog
    - ⓓ jerboa

13. **Many desert animals survive with very little drinking water because they .....**
    - ⓐ look for water underground
    - ⓑ get water from food
    - ⓒ stay and wait for rainwater
    - ⓓ sleep through the summer

14. **Desert animals hide in cool holes during the day and come out at night to .....**
    - ⓐ find more water
    - ⓑ stay cool
    - ⓒ watch the stars
    - ⓓ breathe fresh air

15. **The fennec fox has very big ears to .....**
    - ⓐ warm its body at night
    - ⓑ scare other animals
    - ⓒ let body heat escape
    - ⓓ store more water

16. **The jerboa protects its feet from the hot desert sand by having .....**
    - ⓐ thick fur on its feet
    - ⓑ long back legs
    - ⓒ hairs on its toes
    - ⓓ wide feet

17. **To survive the desert, the acacia tree has ..... to not lose water.**
    - ⓐ very big leaves
    - ⓑ short roots
    - ⓒ large flowers
    - ⓓ small leaves

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18. **At night, scarab beetles roll dung in a straight line by using ..... as a guide.**

ⓐ animals footprints ⓑ the stars

ⓒ smell sense ⓓ the moon

19. **Ancient Egyptians treated the scarab bug with great care because .....**

ⓐ they believed it was a holy creature connected to the sun

ⓑ it was a type of food they liked to eat

ⓒ it warned them when from dangerous animals

ⓓ it helped them build the pyramids

20. **The scarab beetle's job of burying dung is very important for the environment because it .....**

ⓐ hides the dung from birds and animals

ⓑ provides a home for smaller insects

ⓒ makes soil healthy and stops sickness from spreading

ⓓ makes the air smell better and the sand clean

2 Put (✓) for correct statements or (✗) for false statements:

1. The place where a living organism lives is called “adaptation”.
2. Some living organisms live near grass to find food easily and hide.
3. Pill bugs are commonly observed living in damp places on the sunny rocks.
4. The magnifying glass must be close to your eyes whether the object can be moved or not.
5. The first thing you write in a scientific record card is the date and your name.
6. In the last step of classifying living organisms, scientists put things with different features into groups.
7. The papyrus plant and the water lily are both examples of living organisms that belong to the "No legs" classification group.
8. The natural habitat of the Egyptian cobra is the moist environment of the Nile River.
9. The cattle egret and the hoopoe bird can be found in farmlands.
10. The Egyptian clover’s natural habitat is the dry deserts near the Mediterranean Sea.
11. Desert animals are usually active during the day when the temperature goes down.

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12. Camels adapt to the desert by depending only on the water found in their food.
13. The roots of the acacia tree are adapted to grow deep underground to get water.
14. Scarabs bury dung in the soil to spread diseases among plants.
15. Dung beetles have a super smart navigator inside their small bodies.

3 Correct the underlined words:

1. Lizards are commonly found living on ***leaves***. (.....)
2. Animals such as ***Grasshoppers*** are found in damp places under stones. (.....)
3. A ***record card*** is a tool used to observe the tiny joints of an insect's legs by holding it close to the eye. (.....)
4. According to the steps for creating a scientific record card, the first thing you must write at the top is the ***date***. (.....)
5. Placing organisms into groups by looking at their similarities is called ***adaptation***. (.....)
6. Based on the scientific classification charts, the ***spider*** is placed in the group of animals that have six legs. (.....)
7. The papyrus plant is mainly found living in the ***dry desert***. (.....)
8. The ***lotus*** plant grows and survives in the dry deserts near the Mediterranean Sea. (.....)
9. The environment along the Nile River is characterized by ***dry*** soil. (.....)
10. Fennec fox has ***thin feathers*** on the soles of its feet to protect it from getting burned when walking on hot sand. (.....)

4 Write the scientific term:

1. It is the place where a living organism lives in. (.....)
2. It is a scientific tool used to make small objects look larger. (.....)
3. It is a scientific report that includes the topic, date, location, size, shape, colour, and what you learned or wondered about a living organism. (.....)
4. It is the process of collecting things with similar features and putting them in groups based on common points and differences. (.....)
5. It is the changing of body parts or behaviors of a living organism to survive in its habitat. (.....)
6. It is the adaptation of the head of a fennec fox that makes heat escape to the outside. (.....)

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7. It is the adaptation covering the soles of a fennec fox's feet to protect them from burning when walking on hot sand. (.....)
8. It is the body part of a jerboa that allows it to jump quickly like a kangaroo. (.....)
9. It is the shape of leaves of most desert plants, which helps them not lose water. (.....)
10. It is the part of the acacia tree that grows downward in the soil to reach water. (.....)
11. It is an insect known as the "Desert Cleaner" or "Guardian of the Environment". (.....)
12. It is the guide for the scarab beetle, to roll dung in a straight line at night. (.....)

5 Complete the following sentences:

1. Grasshoppers live near grass or trees to find ..... easily or to ..... from dangerous animals.
2. ..... are found in damp places under stones, while ..... are found on rocks in the desert.
3. When observing a leaf in your hand with a magnifying glass, you should hold the glass close to your ..... and move the ..... back and forth to see it clearly.
4. When making a record card, it is important to record ..... and ..... after writing the topic.
5. In the classification of living organisms, the first step is to find ....., the second step is to find ....., and the final step is to put organisms with similar features into .....
6. Egyptian Eagle and the papyrus plant are placed in the group "..... than a sparrow".
7. According to the classification of shapes, a grasshopper and a butterfly belong to the group of animals with ..... legs, while a spider belongs to the group with ..... legs.
8. The natural habitat of the sand cat is the ..... east of the Nile River, while the cattle egret lives in the Nile River basin and ..... areas.
9. The plant known as Egyptian clover naturally grows in the rich lands of the ..... and Upper Egypt, while the colocynth plant grows in dry deserts near the ..... Sea.

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10. Desert animals stay in cool ..... under the ground during ..... because sunlight is strong and temperatures go ..... .
11. Some desert animals drink no water and live only on the water found in their ..... .
12. To protect their feet from hot sand, the jerboa jumps quickly like a ....., while the fennec fox has ..... to keep them from burning.
13. Scarabs deliver ..... to the soil by burying ..... in the dirt.
14. Scarab beetles have a super smart ..... inside their small bodies that allows them to use the light of the ..... as a guide at night.

6 Cross out the odd word and mention the reason:

1. **Jerboa – Fennec fox – Frog – Sand cat**
   Odd word: ..... Reason: .....
2. **Acacia – Colocynth – Date Palm – Water lily**
   Odd word: ..... Reason: .....
3. **Topic – Sketch – Magnifying glass – Date**
   Odd word: ..... Reason: .....
4. **Papyrus – Water lily – Flower – Lizard**
   Odd word: ..... Reason: .....
5. **Grasshopper – Spider – Egyptian eagle – Papyrus**
   Odd word: ..... Reason: .....
6. **Hoopoe – Cattle Egret – Dung Beetle – Egyptian Cobra**
   Odd word: ..... Reason: .....
7. **Camel – Jerboa – Fennec fox – Bees**
   Odd word: ..... Reason: .....

7 Choose from column (B) what suits it in column (A):

- **Table (1):**

Column A	Column B
1. Jerboa	ⓐ has small leaves and roots that grow deep underground.
2. Fennec Fox	ⓑ delivers nutrients to the soil and stops sickness.
3. Acacia	ⓒ has long back legs to jump like a kangaroo.
4. Scarab	ⓓ has big ears to let body heat escape and thick fur on its soles.

1 ..... 2 ..... 3 ..... 4 .....

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- **Table (2):**

Column A	Column B
1. Grasshopper	ⓐ is often found on sunny rocks.
2. Pill bug	ⓑ performs a "cleanup" for nature by burying animal dung.
3. Lizard	ⓒ is often found in damp places under stones.
4. Scarab	ⓓ lives near grass to easily find food and hide.

1 ..... 2 ..... 3 ..... 4 .....

- **Table (3):**

Column A	Column B
1. Spider	ⓐ belongs to the "Colourful" group and the "6 legs" group.
2. Butterfly	ⓑ belongs to the "Green" group and the "No legs" group.
3. Egyptian Eagle	ⓒ belongs to the "Brown" group and the "8 legs" group.
4. Water lily	ⓓ belongs to the "Brown" group and the "2 legs" group.
	ⓔ belongs to the "Green" group and the "4 legs" group.

1 ..... 2 ..... 3 ..... 4 .....

- **Table (4):**

Column A	Column B
1. Colocynth	ⓐ Its habitat is the rich lands of the Nile Delta and Upper Egypt.
2. Date Palm	ⓑ Its habitat is the wetlands and swamps of the Nile River.
3. Lotus	ⓒ Its habitat is the dry deserts near the Mediterranean Sea.
4. Egyptian Clover	ⓓ Its habitat includes deserts, oases, and the Nile River basin.

1 ..... 2 ..... 3 ..... 4 .....

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8 **Classify the following according to whether it belongs along the Nile River or in the desert:**

- (Plenty of water – Acacia – Water bird – Jerboa – moist soil – Very little water – Orange – Frog – Fennec fox – Colocynth – dry soil – Bee – Luffa – Lizard – Lotus)

P.O.C	Along the Nile River	Desert
Environment	.....	.....
Plants	.....	.....
Animals	.....	.....

Essay Questions

9 **What is meant by:**

1. Habitat?

.....

2. Adaptation?

.....

10 **Mention the importance of:**

1. Magnifying glass.

.....

2. Writing a record card when observing a living organism.

.....

3. The process of adaptation for any living organism.

.....

4. Big ears for the fennec fox.

.....

5. The long back legs of the jerboa.

.....

6. Small leaves for desert plants like the acacia tree.

.....

7. Dung beetle to the soil and to humans.

.....

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11 Compare between each of the following:

❶	Grasshopper	Lizards
Their location in habitat	.....	.....

❷	Spider	Butterfly
The Colour	.....	.....
The number of legs	.....	.....

❸	The Nile River habitat	The Desert habitat
The amount of water	.....	.....
The type of the soil	.....	.....
One example of animal lives in each	.....	.....
One example of an animal that lives in each habitat	.....	.....

❹	Papyrus plant	Colocynth plant
Their natural habitats	.....	.....

❺	Desert during the day	Desert during the night
The temperature	.....	.....
The behavior of desert animals	.....	.....

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12 Give a reason for:

1. Grasshoppers live near grasses or trees.

2. Pill bugs are often found under stones or shadows of rocks.

3. A student must never look directly at the sun with a magnifying glass.

4. The kinds of living organisms found along the Nile River are completely different from the living organisms found in the desert.

5. A luffa plant or a frog cannot naturally survive in the desert.

6. Desert animals are mostly active at night rather than during the day.

7. Fennec fox has thick fur on the soles of its feet.

8. Fennec fox has very big ears compared to animals living in forests.

9. Jerboa has long back legs.

10. Acacia tree has small leaves.

11. Acacia tree has roots that grow deep underground.

12. Scarabs are very important for the environment.

13. The Ancient Egyptian people treated the scarab (dung beetle) with great care.

14. Scarab beetles look at the stars while rolling the dung balls at night.

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13 What happens if:

1. You look directly at the sun using a magnifying glass?

.....

2. Scientists took a frog from the Nile River to the desert?

.....

3. The temperature goes down during the night in the desert environment?
(According to the activity of the desert animals)

.....

4. The temperature goes up during the day in the desert environment?
(According to the activity of the desert animals)

.....

5. Jerboa has short back legs instead of long back legs?

.....

6. Fennec fox has thin fur instead of thick fur on its soles of feet?

.....

7. Fennec fox has short ears instead of big ears?

.....

8. Acacia tree has wide leaves instead of small leaves?

.....

9. Acacia tree has short roots instead of long roots?

.....

10. Dung beetles disappear from an environment?

.....

14 Study the following figures, and then answer the questions:

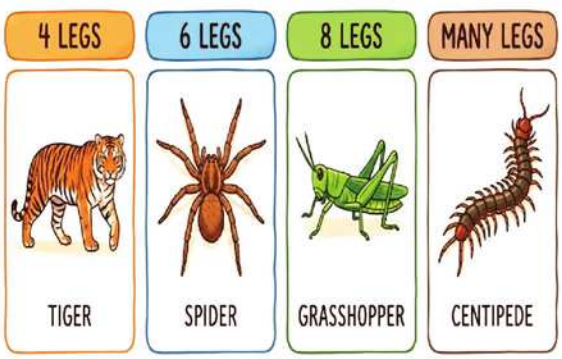
- **Figure 1:**

ⓐ Identify the major mistake in this figure.

.....

ⓑ Mention another way of classification between the four living organisms rather than number of legs.

.....



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- **Figure 2:**

Explain how these two desert animals survive the lack of water in the desert.

.....

.....

- **Figure 3:**

ⓐ Identify the animal in the figure.

.....

ⓑ Explain the scientific behavior (activity) shown in the figure. (Why is it inside the hole?)

.....

- **Figure 4:**

ⓐ Identify the desert animal shown in the figure.

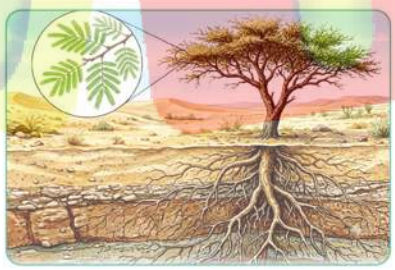
.....

ⓑ Explain the shape of legs that allow this small animal to move on the hot sand easily.

.....

- **Figure 5:**

ⓐ Explain the function of the deep roots shown in the figure.



.....

ⓑ Explain the function of the leaves shown in the circle.

.....

- **Figure 6:**

ⓐ Name the insect shown in the figure.

.....

ⓑ How does this insect navigate in a straight line at night while carrying this ball?

.....

ⓒ Mention one importance for this insect to humans.

.....

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15 Answer the following questions:

1. **Mark (✓) for correct statement, and (✗) for the incorrect one about how to use a magnifying glass:**

   ⓐ Hold the magnifying glass away from your eyes if you can move the thing.

   ⓑ You can look to the sun using a magnifying glass.

   ⓒ You must always hold the magnifying glass close to your eye.

   ⓓ Move the leaf in your hand back and forth when observing it using a magnifying glass that is close to your eye.

2. **Arrange the following steps to write good record card for living organism:**

   ⓐ ( ) Write what you learned or what you wondered.

   ⓑ ( ) Write the date and your name.

   ⓒ ( ) Write the topic.

   ⓓ ( ) Write what you found with a sketch and sentences.

3. Mention three steps that help us in classifying living organisms.

   .....

4. Mention a way of living that helps desert animals to live in the desert.

   .....

5. Mention a body shape that helps desert plants to live in the desert.

   .....

6. Why are scarabs called the "Guardians of the Environment"?

   .....

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Second School Book Questions

1 Choose the correct answer:

1. **Where is it easy to find living organisms in a hot, dry place like Egypt?**
   - ⓐ Right in the middle of the hot sand in the sun.
   - ⓑ Cool places in the shadow of rocks or big stones.
   - ⓒ At the roots where a little bit of grass grows.
2. **To draw a living organism in a Record Card, ...**
   - ⓐ Add shadows to make it look cool.
   - ⓑ Draw the shape exactly as you see it with thin lines.
   - ⓒ If you can't see a part well, imagine it and draw it
3. **What are the physical features of desert plants that help them keep water?**
   - ⓐ The leaves are very big.
   - ⓑ The roots grow shallowly underground.
   - ⓒ The leaves are small.
4. **The colour and shape of living organisms are ..... .**
   - ⓐ decided by how much they exercise.
   - ⓑ adaptations to survive in their habitat.
   - ⓒ caused by the differences in what they eat.
5. **Which of the following correctly matches a plant's shape with its habitat?**
   - ⓐ Desert plants have small leaves so they don't lose water.
   - ⓑ Desert plants have very big leaves to absorb a lot of water.
   - ⓒ Desert plants have very big leaves to share water with animals.
6. **Why are the fennec fox's ears so big?**
   - ⓐ To hear small sounds from far away well.
   - ⓑ To let heat inside the body escape to the outside and keep the body cool.
   - ⓒ To move the big ears like wings and fly in the sky.
7. **Which of the following is NOT true about the features and life of desert living organisms?**
   - ⓐ Fennec foxes have fur on the soles of their feet to protect them from hot sand.
   - ⓑ Mice in the desert often move around at night to avoid the heat.
   - ⓒ Desert plants spread many big, thin leaves so they don't lose water.

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2 Fill in the blanks with correct words:

1. Living organisms live in ..... that suit them. So, the kinds of living organisms you find are different depending on the ..... .
2. Grasshoppers are often found near the ....., while pill bugs are often found in ..... places like under stones.
3. Lizards are sometimes seen on sunny ..... in the desert.
4. The jerboa uses its long ..... to jump and move quickly avoiding the hot ground.
5. Because the sunlight is strong and it is very ..... during the day in the desert, animals often rest in cool ..... in the ground or in the shade of rocks

3 Write the scientific term:

1. It is the place where a living organism lives. (.....)
2. It is the process in which living organism changes its body parts or behaviors to survive in a place. (.....)

4 What would happen if: **You took a frog living in the Nile River to the desert?**

5 Give a reason for: **Desert animals are not very active during the day.**

6 Put (✓) for correct statements or (✗) for false statements:

1. Hold the glass close to the eye and looked at the sun.
2. To look at a leaf in your hand, held the glass to the eye and moved the leaf back and forth.
3. Hold the glass far from the eye and look around.
4. When observing a tree that cannot move, move your own face to focus.
5. Look at the sun through the magnifying glass.

7 What is important to write on a record card besides the sketch? Choose 3 correct answers from below:

ⓐ Date ⓑ Location found ⓒ What you ate for dinner yesterday.
ⓓ Colour and shape of the living organism ⓔ Your favorite colour.

8 Write (A) for living organisms found in the desert, and (B) for those found along the river from below.

- Egyptian sand lizard – Water lily – Fennec fox – Papyrus – Jerboa – Egyptian goose

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